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Reserva

METHOD DEMONSTRATION ANALYSIS  
for

A Home Industries Project

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| <u>Demonstration</u>                     | <u>Operations:</u>                     |
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| <u>MAKING AN EVAPORATOR COOLER</u>       | A. Making the wooden frame             |
| (Formerly called "Iceless Refrigerator") | B. Applying the wood finish            |
|  | C. Covering with screen wire           |
|  | D. Making the water pans               |
|  | E. Making the cloth cover              |
|  | F. Attaching the cover                 |
| GREATEST EFFICIENCY OBTAINED WHEN        | G. Placing the drip pan                |
| USED UNDER DRY ATMOSPHERIC CONDITIONS.   | H. Adding water to the upper water pan |

| Operations | Important steps   | Key points  |
|------------|---|---|
| <u>A</u>   | 1. Cut all pieces according to dimensions given in attached working drawings. | Choose well-seasoned, decay-resistant, and mildly odored wood. (Suitable woods of the Pacific area are teak, ash, maple, birch, sal, molave, dungon.) |
| Making     | 2. Make all mortises, grooves, etc.   | Keep work well squared up and all pieces for opposite ends matched.   |
| the        | 3. Construct the end pieces.  | Make well-fitted joints.  |
| Wooden     | 4. Attach the shelf braces.   | Be sure that the shelf braces match on each end.  |
| Frame      | 5. Attach the two top and the two bottom stretchers.                          | Lay one end down on a flat surface, attach stretchers, then attach other end before standing the frame.   |

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| Operations   | Important steps  | Key points  |
|--|--|---|
| <u>A</u><br>(Continued)  | 6. Fasten the water pan shelf in place.  | On upper end of frame.  |
|  | 7. Make the doorframe.   | Make strong joints at corners—brace if necessary.   |
|  | 8. Make the shelves or shelf frames  | Must be open to give good circulation. (Use slats or galvanized hardware cloth)   |
|  | 9. Attach hinges to door and frame—also the fastener that holds the door closed.   | Make sure that the doorframe is well fitted—use non rusting hinges.   |
| <u>B</u><br><br>Applying<br><br>the<br><br>Wood Finish<br>(If needed or desirable) | Apply a waterproof finish such as: <ol style="list-style-type: none"> <li>1. Two coats of flat paint and/or one coat of enamel.</li> <li>2. Hot linseed oil or</li> <li>3. Hot paraffin wax</li> </ol>         | Apply wood finish before screen wire is attached.   |
|  | For hot paraffin wax treatment: <ol style="list-style-type: none"> <li>a. Warm the wood</li> <li>b. Apply boiling hot paraffin</li> <li>c. Rub with warm cloth</li> <li>d. Apply second coat of wax</li> </ol> | Near open fire or stove.<br>Use cotton cloth mop.<br><br>Remove all surplus wax<br>Rub thoroughly   |
|  | <u>C</u><br><br>Covering<br><br>with<br><br>Screen Wire  | 1. Attach window-screen wire to the back, the ends, and the doorframe, applying thin moulding at edges.<br><br>2. Unless the shelves are made of slats use 1/4 inch hardware cloth to cover shelf frames. |
|  |  | Rustproof wire is preferable. Other wire used should be painted.<br><br>Stretch wire very tightly and tack securely.  |
| <u>D</u><br><br>Making the<br>Upper Water<br>Pan and<br>Bottom Drip<br>Pan         | 1. Make the upper pan to fit inside the frame and to rest on the top shelf.  | Use rustproof metal if possible. If it cannot be obtained, then apply metal paint on the pans.  |
|  | 2. Make the bottom pan about 2 inches wider than the outside dimensions of the frame.  |   |



| Operations   | Important steps   | Key points  |
|--|---|---|
| <u>E</u><br>Making<br>the<br>Cloth Cover               | <ol style="list-style-type: none"> <li>1. Make a cover of cloth to fit the frame. It should be long enough to extend into the bottom drip pan. Canton flannel, burlap, or duck is suitable material.</li> <li>2. Hem all the edges. Make eyelets in the material, or fasten loops on the edges which are to be fastened to the frame.</li> <li>3. Make double wick strips which will reach across the top pan lengthwise and extend out over the cover on each end of the cooler.</li> <li>4. Then make similar piece to extend across the pan in the other direction and to the corner.</li> </ol> | <p>Absorbent material carries the water by capillary attraction best. If canton flannel is used turn the smooth side out.</p> <p>These pieces or wicks serve to carry the water out of the pan into the cloth cover.</p>  |
| <u>F</u><br>Attaching<br>the<br>Cover                  | <ol style="list-style-type: none"> <li>1. Attach the cover around the frame and down the side on which the door opens, also down the hinge side of the frame.</li> <li>2. Then fasten on the open edge of the door frame.</li> <li>3. On the front side of the frame fasten the cloth to the top of the door instead of the frame.</li> <li>4. Lay the wicks in the upper pan, letting them extend over the edge far enough to touch the cover.</li> </ol>  | <p>Snap or other fasteners which permit the cover to be easily removed are best.</p> <p>Let about an inch extend over the open edge of the door.</p> <p>This facilitates the opening of the door.</p> <p>Dampen the cover to speed the capillary movement of the water.</p> |
| <u>G</u><br>Drip Pan                                   | <ol style="list-style-type: none"> <li>1. Stand the frame in the drip pan.</li> </ol>   | <p>The cloth cover falls inside the drip pan.</p>   |
| <u>H</u><br>Adding the<br>Water to<br>the Upper<br>Pan | <ol style="list-style-type: none"> <li>1. Fill the upper pan within 1 inch of the top.</li> </ol>   | <p>If the wicks are inclined to float out of place, weight them down.</p> <p>Keep the upper pan filled with water.</p>  |

